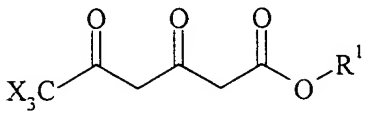
Claims:

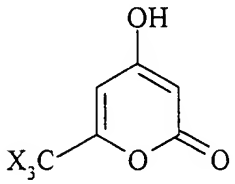
1. A method for preparing compounds of the formula



I,

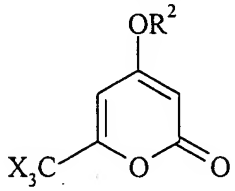
and the enols and *E* and *Z* isomers thereof

in which X is in each case independently of one another fluorine, chlorine or bromine, and in which R^1 is alkyl, cycloalkyl, aryl or aralkyl, characterized in that a compound of the formula



II,

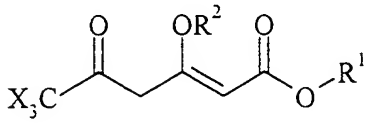
in which X has the stated meaning, is initially converted by reacting the hydroxyl group with a compound of the formula $(R^2O)_2SO_2$ or with a compound of the formula Y-R^2 in which Y is tosyl, chlorine, bromine or iodine, and in which R^2 in each case has the abovementioned meaning, into a compound of the formula



III,

in which R^2 is alkyl, cycloalkyl, allyl or benzyl, and X has the stated meaning, and the latter is then converted by reaction with a metal alcoholate of the formula $R^1O^- \frac{1}{n} M^{n+}$ in which R^1 is alkyl, cycloalkyl, aryl or aralkyl and M^{n+} is an alkali metal or alkaline earth metal cation and n = 1 or 2, and further treatment with a strong acid, into compounds of the formula I and/or enols thereof.

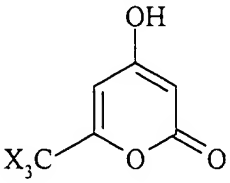
2. A method for preparing enol ethers of the formula



Ib,

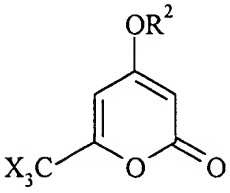
and the enols and *E* and *Z* isomers thereof

in which X is in each case independently of one another F, Cl or Br, and in which R^1 is alkyl, cycloalkyl, aryl or aralkyl, and R^2 is alkyl, cycloalkyl, allyl or benzyl, characterized in that a compound of the formula



II,

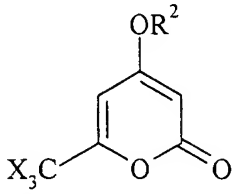
in which X has the stated meaning, is initially converted by reaction of the hydroxyl group with a compound of the formula $(R^2O)_2SO_2$ or with a compound of the formula Y-R^2 in which Y is tosyl, chlorine, bromine or iodine, and in which R^2 in each case has the abovementioned meaning, into a compound of the formula



III,

in which R^2 is alkyl, cycloalkyl, allyl or benzyl, and X has the stated meaning, and the latter is then converted by reaction with a metal alcoholate of the formula $R^1O^- \frac{1}{n}M^{n+}$ in which R^1 is alkyl, cycloalkyl, aryl or aralkyl and M^{n+} is an alkali metal or alkaline earth metal cation and n = 1 or 2, and optionally further treatment with a weak acid into enol ethers of the formula Ib and/or enols thereof.

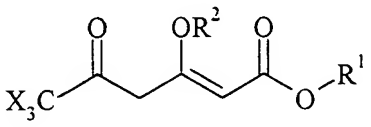
3. Compounds of the formula



III,

in which X is in each case independently of one another F, Cl or Br, and in which R^2 is alkyl, cycloalkyl, allyl or benzyl.

4. Compounds of the formula



Ib,

and the enols and *E* and *Z* isomers thereof

in which X is in each case independently of one another fluorine, chlorine or bromine, and in which R^1 is alkyl, cycloalkyl, aryl or aralkyl, and in which R^2 is alkyl, cycloalkyl, allyl or benzyl.